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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,555

11/02/2006

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EXAMINER

JAIN, ANKUR

ART UNIT

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2618

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,555	<b>Applicant(s)</b> FUKUI ET AL.	
	<b>Examiner</b> ANKUR JAIN	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>27 September 2006</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed September 27<sup>th</sup>, 2006 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered. The references not considered are JP 200078146, JP 2002171572, JP 2004304636, JP 200557323, JP 200464224, and JP 2000278325.

### ***Priority***

2. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan on March 30<sup>th</sup>, 2004.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

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obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 1-2, 6, and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al, US 2002/0068588 A1 (hereafter referenced as Yoshida), in view of Hijikata et al, US Patent 6,633,541 (hereafter referenced as Hijikata).

Regarding **Claim 1**, Yoshida teaches a radio base station apparatus that receives data transferred from a radio network control apparatus via a wired transmission path having a predetermined band and performs wireless transmission of the data to a mobile terminal apparatus via a wireless transmission path, comprising: "a first upper limit setting section that sets a first upper limit of a transfer rate of the data, associated with the wired transmission path, based on a measurement result of the measurement section" (see Paragraph 0065 and Figure 1). Yoshida also teaches "a determination section

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that determines the transfer rate based on a set first upper limit" (see Paragraph 0065 and Figure 1). Yoshida does not teach "a measuring section that measures a usage state of the band." However, Hijikata generally teaches "a measuring section that measures a usage state of the band" (see Column 11 lines 50-65). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Yoshida to include a measuring section that measures a usage state of the band as taught by Hijikata, for the purpose of increasing the functionality/versatility of the base station by actually measuring how the band is being used.

Regarding **Claim 2**, Yoshida teaches "a storage section that temporarily stores received data" (see Figure 1). Buffers 112 and 114 are read on by the claimed limitation. Yoshida also teaches "a data quantity measuring section that measures a quantity of data stored in the storage section" (see Paragraph 0012). Yoshida also teaches "an average value calculation section that calculates an average value of a transmission rate of data transmitted by wireless transmission" (see Paragraph 0130). Yoshida also teaches "a second upper limit setting section that sets a second upper limit of the transfer rate, associated with the wireless transmission path, based on a quantity of data measured by the data quantity measuring section and an average value calculated by the average value calculation section; wherein the determination section performs determination of the transfer rate based on the smaller value of a set first upper limit and second upper limit" (see Paragraph 0065 and Figure 1). "Second upper limit setting section" reads on how base station 204 includes buffers 112 and

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113, and when the used area of any of these buffers exceeds a predetermined upper limit threshold, the base station 204 can easily acquire a "second upper limit setting section" corresponding to buffer 113.

Regarding **Claim 6**, Yoshida teaches "the first upper limit setting section performs determination of whether or not to lower a first upper limit based on a monitoring result in a first monitoring period, and performs determination of whether or not to raise a first upper limit based on a monitoring result in a second monitoring period; and a length of the first monitoring period is less than or equal to a length of the second monitoring period" (see Paragraph 0065, Paragraph 0078, Paragraph 0080, Paragraph 0098, Paragraph 0100, and Figure 10). "Monitoring," "lowering," and "raising" all read on the disclosed paragraphs in relation to the "upper limit" described, and figure 10.

Regarding **Claim 10**, the claim is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Hijikata according to the reasons outlined in claim 1 above.

4. **Claims 3-5 and 7-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Hijikata, as applied to Claims 1, 3, and 5 accordingly, and further in view of Yahiro, US 2003/0162531 A1 (hereafter referenced as Yahiro).

Regarding **Claim 3**, the combination of Yoshida and Hijikata teaches how "the first upper limit setting section raises a first upper limit" when something is "less than or equal to a first threshold value, and "lowers a first upper limit" when something is "greater than or equal to a second threshold value" (see Paragraph

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0065 and Paragraph 0100). The combination of Yoshida and Hijikata does not teach how “the measuring section calculates a band usage rate of the wired transmission path as a result of measurement of a usage state of the band.” However, Yahiro generally teaches how “the measuring section calculates a band usage rate of the wired transmission path as a result of measurement of a usage state of the band” (see Paragraph 0056 and Paragraph 0058). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the combination so that the measuring section calculates a band usage rate of the wired transmission path as a result of measurement of a usage state of the band as taught by Yahiro, for the purpose of increasing the functionality/versatility of the base station by actually measuring how the band is being used and the usage rate associated with the band.

Regarding **Claim 4**, the combination of Yoshida and Hijikata teaches “wherein the measuring section measures throughput of the wireless transmission path” (see Paragraph 0130). The combination of Yoshida and Hijikata does not teach “performing band usage rate calculation by dividing that measurement result by a band of the wireless transmission path.” However, Yahiro generally teaches “performing band usage rate calculation by dividing that measurement result by a band of the wireless transmission path” (see Paragraph 0056 and Paragraph 0058). It is necessary by definition to perform the “band usage rate calculation” by “dividing the throughput by a band of the wireless transmission path” in order to get a rate. It would have been obvious for one of

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ordinary skill in the art at the time the invention was made to modify the combination according to claim 3.

Regarding **Claim 5**, the combination of Yoshida and Hijikata teaches “measurement of a usage state of the band; and the first upper limit setting section performs monitoring in a predetermined measurement cycle over a monitoring period having a length greater than or equal to the measurement cycle, and changes a first upper limit based on a result of that monitoring” (see Column 11 lines 50-65, Paragraph 0065, Paragraph 0078, Paragraph 0080, Paragraph 0098, and Figure 10). This monitoring is discussed in Figure 10 of Yoshida, and the “changing of the first upper limit” reads on how the priority is set to zero in step 1005. The combination of Yoshida and Hijikata does not teach “the measuring section calculating a band usage rate of the wired transmission path.” However, Yahiro generally teaches “the measuring section calculating a band usage rate of the wired transmission path” (see Paragraph 0056 and Paragraph 0058). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the combination so that the measuring section calculates a band usage rate of the wired transmission path as taught by Yahiro, for the purpose of increasing the functionality/versatility of the base station by actually measuring how the band is being used and the usage rate associated with the band.

Regarding **Claim 7**, the combination of Yoshida and Hijikata teaches “the first upper limit setting section” (see claim 1 for discussion). The combination of Yoshida and Hijikata does not teach “detecting that a calculated band usage rate



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is continuously 100% by performing band usage rate monitoring.” However, Yahiro generally teaches “detecting that a calculated band usage rate is continuously 100% by performing band usage rate monitoring” (see Paragraph 0015). The communication load being shared by the plurality of wireless units to eliminate a bias of the communication load directly implies that the “calculated band usage rate is continuously 100%.” It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the combination according to the rationale presented in claim 5.

Regarding **Claim 8**, the combination of Yoshida and Hijikata teaches “the first upper limit setting section” (see claim 1 for discussion). The combination of Yoshida and Hijikata does not teach “detecting that a calculated band usage rate is continuously less than 100% by performing band usage rate monitoring.” However, Yahiro generally teaches “detecting that a calculated band usage rate is continuously less than 100% by performing band usage rate monitoring” (see Paragraphs 0054 through Paragraph 0056). The fact that there are some wireless units with the highest and lowest loads, directly implies that in certain instances, the “calculated band usage rate is continuously less than 100% by performing band usage rate monitoring.” It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the combination according to the rationale presented in claim 5.

Regarding **Claim 9**, the combination of Yoshida and Hijikata teaches “wherein the measuring section measures throughput of the wireless transmission path” (see Paragraph 0130). The combination of Yoshida and

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Hijikata does not teach “performing band usage rate calculation by dividing that measurement result by a band of the wireless transmission path.” However, Yahiro generally teaches “performing band usage rate calculation by dividing that measurement result by a band of the wireless transmission path” (see Paragraph 0056 and Paragraph 0058). It is necessary by definition to perform the “band usage rate calculation” by “dividing the throughput by a band of the wireless transmission path” in order to get a rate. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the combination according to claim 5.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ankur Jain whose telephone number is 571-272-9747. The examiner can normally be reached on M-F, 7:30 am to 5:00 pm, EST, Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Lana Le, can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ankur Jain/  
Examiner, Art Unit 2618  
03/11/08

/Lana N. Le/  
Acting SPE of Art Unit 2618